III.   REMARKS

In the Office Action, at Point 2, the examiner analyzed applicant's argument, and stated that the rejection is maintained.

In the Office Action, claims 33-39 were rejected under 35 U.S.C. 103 as being unpatentable over Yu (US 6,256,347) in view of Yagasaki (US 5,428,396) for reasons set forth in the Office Action.

With respect to the rejections under 35 U.S.C. 103, the following argument is presented to distinguish the claimed subject matter from the teachings of the cited art, thereby to overcome the rejections, and to show the presence of allowable subject matter in the claims.

The examiner maintains the view expressed in the prior Action that the present claims are obvious over the combined teachings of Yu and Yagasaki, and has again cited passages of Yagasaki that were cited in the prior Action.

It is believed that, in the opinion of the examiner, the wording of the claims is not adequately clear to differentiate between the concepts of "motion coefficients" and "prediction error coefficients". The claims are amended for clarification of the use of these terms by explicitly stating what each of these terms are used for.

By way of example, in order to provide clarification of the terminology, the amended claim 33 states "the prediction error quantizer used to quantize the prediction error transform coefficients", and also states "the motion coefficients representing the motion of a picture segment".

The following analysis presents points made in the argument of the previous response, which points should distinguish the claimed subject matter from the teachings of the cited art in view of the clarifying language introduced by the present amendment.

In rejecting claims 33-39, the examiner on Page 8 of the Action states that "Yu (US 6,256,347) does not specifically disclose determining the accuracy of the motion coefficients using which the motion coefficients are quantized based on the prediction error quantizer" and continues to argue that Yagasaki teaches this step in col. 13, lines 24-36. This opinion of the examiner is traversed respectfully in view of the following argument.

Yagasaki teaches (col. 13, lines 24-36) that: FIG. 7 is a block diagram of a motion vector VLC circuit 16 which is part of the variable length coding circuit of FIG. 4B. As shown in FIG. 7, the input motion vector value S13, the signal S52 or S53 which represents the range with respect to which the input motion vector value was formed, and the signal S54 or S55, which represents the degree of accuracy of the motion vector, are all supplied to an arithmetic circuit 1. Selections between the signals S54 and S55 and between the signals S52 and S53 are made in accordance with the motion compensation mode signal S14. As indicated above, when the degree of accuracy of the motion vector is 0.5 picture element, the arithmetic circuit 1 multiplies the input motion vector value by two.

It is clear from the foregoing teaching of Yagasaki, in conjunction with other portions of his patent, that Yagasaki teaches a method for variable-length coding of motion-vector values using a single reference table, where the mapping between the motion-vector codes and the variable length codewords is determined on the basis of motion vector value ranges and the accuracy of the motion vectors. While coding motion vectors having a finer degree of accuracy than is provided for in the reference table, the motion vector value is multiplied by an appropriate factor, and the resulting product is used to obtain a corresponding variable length code value from the reference table. This is described in detail in Col. 12, lines 35-50 in reference to Tables 1 and 2.

There is no suggestion in Yagasaki that the accuracy of the motion vectors is determined based on the quantization step used for (de)quantizing the prediction error transform coefficients. In Col. 14, lines 22-34, it is stated that the motion vector degree
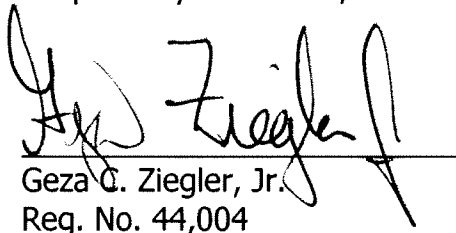
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of accuracy signals are included in the picture header code as control data which controls the decoding operation. The quantization step size used for inverse quantization of transform coefficients is received in the encoded bitstream (col. 14, lines 41-45); however, there is no discussion that the accuracy of motion vectors is determined based on the quantizer step size.

Based on the foregoing observations, it is submitted that the teachings of Yu and Yagasaki, considered separately and in combination, can not anticipate or suggest the subject matter of the independent claims 33, 35, 37 and 39, nor their respective dependent claims, where the determination of the quantization applied to motion coefficients is determined based on quantization applied to transform coefficients. Accordingly, reconsideration of the rejections of claims 33-39 is requested respectfully.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

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2 May 2008
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